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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/661,548

09/15/2003

Joachim Klink

9062

7590
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10/15/2007

EXAMINER

NGUYEN, STEVEN H D

ART UNIT

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2619

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/661,548

Applicant(s)

KLINK, JOACHIM

Examiner

Steven H.D Nguyen

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/21/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 11 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As claim 11, the recitation "wherein . . . as **low priority traffic** which are automatically displaced **from the low priority traffic** in the case of the protection switching of the high priority traffic". Is it the low priority traffic will be displaced from the high priority traffic? Please clarify.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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4. Claims 1 and 3-16 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of U.S. Patent No. 6704279 in view of Klink (USP 6263640) and Swallow (IEEE).

Regarding claims 1 and 3-16 of the present application, the subject matter recited by the present claims are all encompassed by the claims 1-18 of the patent, except for a multiplicity of the protecting links share a jointly reserved transmission capacity and retaining the logical associated with of the two oppositely directed unidirectional MPLS connections. However, in the same field of endeavor, Klink discloses a method and apparatus for the protecting entities share a reserved transmission capacity (See col. 1, lines 59-61) and Swallow discloses retaining the logical associated with of the two oppositely directed unidirectional MPLS connections (Page 55, Right column).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and apparatus for sharing a reserved transmission capacity with a plurality of protection link as disclosed by Klink's method and apparatus and retaining the logical associated with of the two oppositely directed unidirectional MPLS connections as disclosed by Swallow. The motivation would have been to increase the capacity of the network and reduce the cost of established the protection link in the network by sharing a single transmission capacity with a plurality of protection link.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-10, 12-13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klink (EPO857002) in view of Swallow (IEEE).

Regarding claims 1-2, 4, 8 and 16, Klink discloses (Fig 1-4 and Page 3-17) a method for protecting switching of transmission devices comprising the steps at least two switching devices which in each case terminate a transmission section formed of operating link and/or protecting links (Fig 1) and between which information is exchanged over the transmission section wherein in the case of fault on the relevant transmission section, the information transmitted over the section is diverted to the protection link accordance with the determination of priority criteria and logical connection information (See Page 16, lines 2-9, the flow is switched to the protection link based on priority and connection such as VCI or VPI which is a tag switching in ATM network); a number of linear transmission sections joined together so that a ring line system is formed wherein operating protection links are conducted via different physical paths (Fig 1-4, the protection and working link between the switches are connected together to form a ring wherein the protection links are on a different physical path) and a multiplicity of protecting links share a jointly reserved transmission capacity (Page 4, lines 11-14); an unidirectional ring line system is formed by using unidirectional switching devices (Fig 1-4); the switching devices are constructed as cross-connect switching systems (Page 4, lines 23). However, Klink fails to disclose the information is linked into MPLS packets such that two oppositely directed unidirectional MPLS connections are logically associated with one another, the two oppositely directed MPLS connections in each case connecting the same switching devices. In the same

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field of endeavor, Swallon discloses a method and apparatus for rerouting the MPLS packets wherein two oppositely directed unidirectional MPLS connections are logically associated with one another and the two oppositely directed MPLS connection in each case connecting the same switching devices; the logical association of the two oppositely directed unidirectional MPLS connections is retained; the logical connection information is the MPLS connection number and the connections conducted via the at least one operating link and the connections conducted via the protection link are set up via an MPLS signaling protocol which also reserves bandwidth in the transmission devices and specifies the path of the operating link and of the protection link. (See Page 55, Right hand column section LSP tunnels, LSP tunnel is unidirectional path between the first and second node; for the bidirectional link between the nodes, the network must setup a forward and reverse tunnels between them and the tunnels associated with each other. A method and apparatus for rerouting the MPLS packet to a protection tunnel after receiving a fail signal which indicates a failure on the working link; See Page 56, section Fast rerouting; MPLS connection number is a Label; a signaling protocol for establishing the working and protecting tunnels in MPLS is RSVP, Page 55, Right column).

Since, Swallon discloses a label of MPLS packet can be routed as ATM virtual connection of ATM cell because the swap operation between a labels of MPLS packet are analogous to the VCI or VPI switching of ATM cell and LSP and ATM share a lot of characteristic. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of establishing the working and protection tunnels between the nodes and switching from the working tunnel to the protection tunnel after receiving a fail signal which indicates a failure on the working tunnel as disclosed by Swallon's

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method into Klink's system. The motivation would have been to increase a network scalability, simplify network service integration and management network, offer integrated recover.

Regarding claim 3, Klink discloses a protection-switching request is generated to which other priorities are assigned (Page 7, lines 7-19).

Regarding claim 5, Klink discloses a local and global priority tables are provided in which the order of rank of the priorities is specified (Page 7, lines 7-19).

Regarding claim 6, Klink discloses a protection switching request arrives in the receiving switching device, a protection switching protocol is generated which is supplied once to the transmitting switching device via the protection link (Page 7, line 20-25 and Page 8, lines 10).

Regarding claim 7, Klink discloses a total failure and degradation of an operating link are determined in the monitoring device of the receiving switching device (Page 9, lines 16-20 and Page 17, lines 20-21).

Regarding claim 9, Klink discloses the protection switching is effected by driving a switching device included in the transmitting switching device and by using a selection device arranged in the receiving switching device (Fig 1, SN).

Regarding claim 10, Klink discloses a special data are transmitted via the protection link at times free of operating disturbances (Page 18, lines 12-13).

Regarding claim 12, Klink discloses the selection device is constructed as a switching network and/or as a simple switching element (Fig 1, SN).

Regarding claim 13, Klink discloses a protection switching protocol is exchanged cyclically between the transmitting and receiving switching devices (Fig 1, ES).

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7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klink and Swallon as applied to claim 1 above, and further in view of Awduche (IEEE).

Klink and Swallon fail to disclose the special data are arranged as low-priority traffic that are automatically displaced from the high-priority traffic in the case of protection switching of the high-priority traffic. In the same field of endeavor, Awduche discloses a LSP tunnel that established based on priority will preempt the low priority traffic in order to forward the high priority traffic (Page 46, left column).

Since, Swallon suggests the use of RSVP to establish LSP tunnel between the nodes. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method of preempting the low priority traffic from tunnel in order to forward the high priority traffic as disclosed by Awduche's method and system into method and apparatus of Klink and Swallow. The motivation would have been to prevent a node from discarding the high priority traffic. Even without Awduche's teaching one of ordinary skill would have been known how to preempt the low priority traffic to forward a high priority traffic because it is well known and expected in the art.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven H.D Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jayanti Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Steven H.D Nguyen
Primary Examiner
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